

Agenda of the EOS Aura Science Team Meeting
1-3 October 2012
Pasadena, California

Monday, 1 October 2012

8:00 – 8:30 *Registration*

Session Chair: *TBD*

8:30 – 8:50 Welcome, Logistics, and News
 Project Science
 NASA Headquarters

8:50 – 9:50 Aura Instruments Overview and Status (15 minutes each)
 TES *John Worden*
 MLS *Nathaniel Livesey*
 OMI *Pieter Levelt*
 HIRDLS *John Gille*

9:50 – 10:05 Aura Education and Public Outreach *Ginger Butcher*

10:05 – 10:30 *Break*

10:30 – 10:45 **Constraints on Tropospheric CO₂ from TES and ACOS-GOSAT Assessed with TCCON and HIPPO Measurements** (*Susan Kulawik (JPL/Caltech), K. Bowman, M. Lee, D. Jones, J. Worden, R. Nassar, C. O'Dell, S. C. Wofsy, D. Wunch, P. Wennberg, D. Griffith, V. Sherlock, N. M. Deutscher, J. Notholt, S. Dohe, T. Warneke, I. Morino, R. Sussmann, R. Jimenez, S. Park, G. Santoni, B. Daube, J. Pittman, B. Stephens, and E. Kort*)

10:45 – 11:00 **A New A-Train Collocated Cloud Product Combining MODIS and OMI Cloud Information onto the OMI Footprint** (*Brad Fisher (SSAI), J. Joiner, A. Vasilkov, P. Veefkind, J. de Haan, M. Sneep, S. Platnick, G. Wind, and P. Menzel*)

11:00 – 11:15 **Characterizing Aerosols above Cloud Using Satellite-Based UV and Visible Measurements** (*Hiren Jethva (USRA/GESTAR at NASA/GSFC), O. Torres, P. K. Bhartia, and C. Ahn*)

11:15 – 11:30 **Retrieval of the Global Water Vapor Distribution from Satellite Observations in the Blue Spectral Range** (*Holger Sihler (U. of Heidelberg), K. Mies, S. Beirle, and T. Wagner*)

11:30 – 11:45 **Three Blind Men Touching the Elephant: CALIOP (Lidar), CloudSat (Radar), and MLS (Microwave) All Look at Ice Clouds in the Tropical Tropopause Transition Layer** (*Melody A. Avery (NASA/LARC)*)

11:45 – 12:00 **Understanding the Short- and Long-Term Variations in Stratospheric Water Vapor** (*A. E. Dessler (Texas A&M), M. R. Schoeberl, and T. Wang*)

12:10 – 12:15 **Understanding Convection-Aerosols Interaction through Joint Use of Aura, A-Train, and ISCCP Satellites Datasets** (*Rong Fu (U. of Texas), S. Chakrabarty, and S. Massie*)

12:15 – 13:45 *Lunch*

Monday, 1 October 2012 (continued)

Session Chair: *TBD*

13:45 – 14:00	Using Aura MLS and Other A-Train Satellite Observations to Diagnose and Improve Cloud and Water Vapor Simulations in Post-CMIP5 Climate Models (<i>Jonathan H. Jiang (JPL/Caltech), H. Su, J. Shen, and C. Zhai</i>)
14:00 – 14:15	A Multi-Decadal Study of Cirrus in the Upper Troposphere (<i>Steven Massie (NCAR/UCAR), R. Khosravi and J. Gille</i>)
14:15 – 14:30	Quantifying Tropical Dehydration Using MLS Water Vapor and Temperatures from GPS Radio Occultation (<i>William J. Randel (NCAR/ACD) and Aurelien Podglajen</i>)
14:30 – 14:45	Aerosol Effects on the Stratospheric Water Vapor (<i>Hui Su (JPL/Caltech), J. H. Jiang, J. T. Shen, X. Liu, Y. Ming, J.-H. Yoon, C. Zhai, W. G. Read, L. Froidevaux, and L. Wu</i>)
14:45 – 15:00	Update on the Atmospheric Chemistry Experiment (ACE) Satellite Mission (<i>Claire Waymark (U. Toronto), K. A. Walker, P. F. Bernath, C. Boone, and C. T. McElroy</i>)
15:00 – 15:15	Methyl Chloride from the Aura Microwave Limb Sounder: Validation and First Global Climatology in the Uppermost Troposphere / Stratosphere (<i>Michelle L. Santee (JPL/Caltech), N. J. Livesey, G. L. Manney, A. Lambert, and W. G. Read</i>)
15:15 – 15:30	Bayesian Uncertainty Quantification for OMI (<i>Johanna Tamminen (FMI), M. Laine, A. Määtä, J. Kujanpää, and P. Veefkind</i>)
15:30 – 16:00	<i>Break</i>
Session Chair:	<i>TBD</i>
16:00 – 16:15	TES Validation and New Species in V05 (<i>Robert L. Herman (JPL/Caltech) and the TES Science Team</i>)
16:15 – 16:30	Updates on OMI Ozone Profile Retrievals and Validation with Ozonesonde Observations (<i>Xiong Liu (Harvard-Smithsonian Center of Astrophysics), J. Bak, K. Yang, C. Liu, K. Chance, L. Pan, P. K. Bhartia, and Ozonesonde Providers</i>)
16:30 – 16:45	Minor Trace-Gas Measurements by the Tropospheric Emission Spectrometer (TES) (<i>Karen Cady-Pereira (Atmospheric and Environmental Research), M. W. Shephard, D. K. Henze, L. Zhu, R. W. Pinder, J. O. Bash, D. B. Millet, K. C. Wells, G. Jeong, M. Lou, and S. Chaliyakunnel</i>)
16:45 – 17:00	Update on OMI Formaldehyde Total Column Retrievals at the Smithsonian Astrophysical Observatory (<i>G. Gonzalez Abad (Harvard U.), X. Liu, K. Chance, C. Chan Miller, R. Suleiman, and L. Zhu</i>)
17:00 – 17:15	Surface Ozone Observation from Aura Satellite Using Multispectral (TIR and UV) Retrievals (<i>Dejian Fu (JPL/Caltech), J. Worden, S. Kulawik, G. Osterman, and K. Bowman</i>)
17:15 – 17:30	Correlations between Partial Column Ozone Amounts in the Troposphere to the Near-Surface Ozone: Implications for Geostationary Satellite Retrieval Applications (<i>Douglas K. Martins (Penn State), R. M. Stauffer, A. M. Thompson, and H. S. Halliday</i>)
19:30	Team Dinner – Visit the meeting web site < http://mls.jpl.nasa.gov/aura2012/ > for additional information

Tuesday, 2 October 2012

Session Chair: *Bryan Duncan*

8:30 – 8:45	Improved OMI NO₂ Standard Product: Algorithm, Evaluation, and Results <i>(Nickolay Krotkov (NASA/GSFC), E. Bucsela, E. Celarier, L. Lamsal, W. Swartz, K. Pickering, B. Duncan, S. Janz, J. Herman, Y. Yoshida, L. Yurganov, E. Spinei, and J. Gleason)</i>
8:45 – 9:00	Improvements in Surface Ozone in the Eastern U.S. during the Past Four Decades: Success of Air Quality Regulation Revealed by Surface, Satellite, and Emission Monitoring (<i>Ross Salawitch (U. of Maryland), K. Hosley, T. Carty, H. He, R. Dickerson, N. Krotkov, L. Lamsal, W. Swartz, K. F. Boersma, H. Eskes, H. Worden, M. Deeter, D. Edwards, J. Gille, A. Richter, and J. Burrows</i>)
9:00 – 9:30	The NASA Air Quality Applied Sciences Team (AQAST): Exploitation of Aura Data <i>(Daniel J. Jacob (Harvard U) representing AQAST, invited)</i>
9:30 – 9:45	Exploiting Sentinel 5's Synergy with IRS and 3MI on METOP-SG for Protocol Monitoring and Air Quality-Climate Interaction (<i>Pieterneel F. Levelt (KNMI/ U. of Technology Delft), P. Veefkind, M. van Weele, E. A. A. Aben, C. Clerbaux, and T. Phulpin</i>)
9:45 – 10:00	Fast Daily Emission Estimates in China Constrained by Satellite Observations <i>(Bas Mijling (KNMI), R. van der A, and Pieterneel Levelt (Presenter))</i>
10:00 – 10:30	Operational Use of Observations from the Aura Mission in MACC-II and the Future GMES Atmospheric Service (<i>Richard van Engelen (ECMWF), invited</i>)
10:30 – 11:00	<i>Break</i>
Session Chair: <i>Nickolay Krotkov</i>	
11:00 – 11:15	Errors in Evaluating Chemistry Transport Models with UV/Vis Satellite Retrievals: How to Avoid Them? (<i>K. Folkert Boersma (KNMI), G. C. M. Vinken, and P. Castellanos</i>)
11:15 – 11:45	Climate Impacts of Non-CO₂ Gases and Aerosols and Satellite Measurements <i>(Jean-Francois Lemarque (NCAR/UCAR), invited)</i>
11:45 – 12:00	Using OMI HCHO Observations to Test Biogenic and Anthropogenic Emission Inventories in Africa (<i>Eloïse Marais (Harvard U.), D. J. Jacob, T. P. Kurosu, K. Chance, J. G. Murphy, C. Reeves, G. Mills, S. Casadio, D. B. Millet, M. P. Barkley, F. Paulot, J. Mao, and C. Vigouroux</i>)
12:00 – 12:15	NO₂, Wind Speed, and the Chemical Removal Rate of Tropospheric NO_x (<i>Ron C. Cohen (UC Berkeley) and L. C. Valin</i>)
12:15 – 12:30	Attributing 2005-2010 Increases in Free Tropospheric Ozone to Rising Anthropogenic NO_x Emissions over Eastern Asia with the TES and OMI Sensors and the TM5 Chemistry Transport Model (<i>Willem W. Verstraeten (KNMI/ Eindhoven U. of Technology), K. F. Boersma, J. Zörner, M. H. A. van Geel, and K. W. Bowman</i>)
12:30 - 14:00	<i>Lunch</i>

Tuesday, 2 October 2012 (continued)

Session Chair: *John Worden*

14:00 – 14:15	Tropospheric Ozone Transport in the Pacific Northwest (<i>Farren L. Herron-Thorpe (Washington State U.), G. H. Mount, L. K. Emmons, B. K. Lamb, S. H. Chung, D. A. Jaffe, and J. K. Vaughan</i>)
14:15 – 14:30	An Examination of Air Quality over the Canadian Oil Sands Using Aura Observations (<i>Chris McLinden (Environment Canada) and Vitali Fioletov, invited</i>)
14:30 – 14:45	Top-Down and Bottom-Up Estimates of Methane Emissions from the 2006 Indonesian Peat Fires Using Aura TES Satellite Observations of CH₄ and CO and GEOS-Chem (<i>John Worden (JPL/Caltech), K. Wecht, C. Frankenberg, M. J. Alvarado, P. M. Bergamaschi, K. W. Bowman, E. A. Kort, S. S. Kulawik, M. Lee, V. Payne, and H. M. Worden</i>)
14:45 – 15:00	High-Resolution Inverse Modeling of Methane Sources in North America Using Satellite Observations (SCIAMACHY, TES, GOSAT) (<i>Kevin Wecht (Harvard U.), D. Jacob, S. Wofsy, M. Payer, J. Worden, C. Frankenberg, E. Kort, V. Payne, D. Henze, and H. Boesch</i>)
15:00 – 15:15	Identifying and Forecasting Deep Stratospheric Ozone Intrusions over the Western United States from Space (<i>Meiyun Lin (NOAA/GFDL/Princeton), A. M. Fiore, L. W. Horowitz, X. Liu, L. L. Pan, O. R. Cooper, A. O. Langford, P. J. Reddy, invited</i>)
15:15 – 17:30	Poster Session (see poster list below)
19:30	PI Dinner – Visit the meeting web site < http://mls.jpl.nasa.gov/aura2012/ > for additional information

Wednesday, 3 October 2012

Session Chair: *TBD*

8:30 – 8:45	Mission Operations Working Group Report (<i>Angie Kelly, NASA/GSFC</i>)
8:45 – 9:00	Data Systems Working Group Report (<i>Paul Wagner, JPL</i>)
9:00 – 9:15	Preserving Aura Data and Information to Support Future Research (<i>Hampapuram Ramapriyan, NASA/GSFC</i>)
9:15 – 9:30	Quantifying Surface Emissions of Methanol Using Observations from the Tropospheric Emission Spectrometer (<i>Kelley C. Wells (UMN), Dylan B. Millet (Presenting), K. E. Cady-Pereira, M. W. Shephard, M. Luo, and D. K. Henze</i>)
9:30 – 9:45	Estimates of Lightning NO_x Production from OMI NO₂ Observations during DC3 (<i>Kenneth Pickering (NASA/GSFC), E. Bucsela, K. Cummings, D. Allen, L. Lamsal, E. Celarier, B. Swartz, and N. Krotkov</i>)
9:45 – 10:00	Satellite Observations of a Seasonal Cycle in NO_x Emission Factors from Fires in the African Savanna (<i>Anna K. Mebust (UC Berkeley) and R. C. Cohen</i>)
10:00 – 10:15	Impact of Meteorology and Emissions on the Interannual Variation of Tropospheric Ozone over the South America and Surrounding Oceans (<i>Junhua Liu (Harvard Univ) and Jennifer Logan</i>)
10:15 – 10:30	Inter-Annual Variability of Tropospheric Ozone and Implications for Stratosphere-Troposphere Exchange (<i>Jerald R. Ziemke (GESTAR-NASA/GSFC), A. R. Douglass, M. A. Olsen, and J. C. Witte</i>)

Wednesday, 3 October 2012 (continued)

10:30 – 11:00	<i>Break</i>
Session Chair:	John Worden
11:00 – 11:15	HO_x Partitioning in the Mesosphere during Solar Proton Events (<i>Pekka T. Verronen (FMI), M. Laine, S. Wang, and C. H. Jackman</i>)
11:15 – 11:30	The Ca II K and Mg II Solar Indices from OMI: the Unusual Cycle 24 (<i>Sergey Marchenko (SSAI) and Matthew DeLand</i>)
11:30 – 11:45	Broadband Surface Solar Irradiance Derived from SCIAMACHY and OMI (<i>Ping Wang (KNMI), R. van der A, M. Sneep, R. Mueller, P. Stammes, and P. Veefkind (Presenter)</i>)
11:45 – 12:00	Vertical Profile of the Solar Cycle Induced Variability in Atmospheric OH and the Implications on Ozone (<i>Shuhui Wang (JPL/Caltech), S. P. Sander, N. J. Livesey, M. L. Santee, K.-F. Li, Y. L. Yung, M.-C. Liang, J. W. Harder, M. Snow, and F. P. Mills</i>)
12:00 – 12:15	Top-of-the-Atmosphere Shortwave Flux Estimation from UV Observations: An Empirical Approach Using A-Train Satellite Data (<i>Pawan Gupta (NASA GESTAR/USRA), J. Joiner, A. Vasilkov, and P. K. Bhartia</i>)
12:15 – 12:30	Precipitating Radiation Belt Electrons and Enhancements of Mesospheric Hydroxyl: Observations and Modeling (<i>Monika E. Andersson (FMI), P. T. Verronen, S. Wang, C. J. Rodger, M. A. Clilverd, and B. R. Carson</i>)
12:30 – 14:00	<i>Lunch</i>
Session Chair:	TBD
14:00 – 14:15	Global Ozone-CO Correlations from OMI and AIRS as Constraints on Ozone Sources and Transport (<i>S. Patrick Kim (Harvard U.), D. Jacob, X. Liu, and J. Warner</i>)
14:15 – 14:30	The Response of Lower Atmospheric Ozone to ENSO in Aura Measurements and a Chemistry-Climate Simulation (<i>Luke D. Oman (NASA/GSFC), A. R. Douglass, J. R. Ziemke, J. M. Rodriguez, D. W. Waugh, and J. E. Nielsen</i>)
14:30 – 14:45	Upper Troposphere/Lower Stratosphere (UTLS) Jet and Tropopause Characteristics over Boulder, Colorado, USA: Context for Ground-Based Ozone Measurements (<i>Gloria L. Manney (NWRA/NM Inst. of Mining and Tech.), I. Petropavlovskikh, W. H. Daffer, M. J. Schwartz, M. L. Santee, S. Pawson, and N. J. Livesey</i>)
14:45 – 15:00	A-Train Measurements and Modeling of the 2011 Nabro (Eritrea) Volcanic Eruption (<i>Simon A. Carn (Michigan Tech U.), K. Yang, J. Wang, A. J. Prata, and D. Fee</i>)
15:00 – 15:15	Observations and Interpretation of Descent and Mixing in the Northern Hemisphere Brewer Dobson Circulation (<i>John Gille (NCAR/UCAR), S. Karol, D. Kinnison, V. Yudin, and B. Nardi</i>)
15:15 – 15:30	A Link between Tropical Intraseasonal Variability and Arctic Stratospheric Ozone Observed by Aura Measurements (<i>Yuk L. Yung (Caltech), K.-F. Li, B. Tian, K.-K. Tung, L. Kuai, and J. R. Worden</i>)
15:30 – 16:00	<i>Break</i>

Wednesday, 3 October 2012 (continued)

Session Chair: *TBD*

16:00 – 16:15	Global and Seasonal Variations in Gravity Wave Momentum Fluxes: A Comparison of Observations and Climate Models (<i>M. Joan Alexander (NorthWest Research)</i>)
16:15 – 16:30	Long-Term Data Records of Stratospheric Composition from the GOZCARDS Project: Variations in HCl, O₃, and H₂O (<i>Lucien Froidevaux (JPL/Caltech), J. Anderson, H.-J. Wang, R. A. Fuller, N. J. Livesey, S. Davis, K. Rosenlof, R. McPeters, S. M. Frith, J. Wild, J. M. Russell, P. F. Bernath, K. A. Walker, J. M. Zawodny, and L. W. Thomason</i>)
16:30 – 16:45	Impacts of Assimilating MLS Temperature on the Upper Stratosphere in GEOS-5 (<i>Steven Pawson (NASA/GSFC), J. Jin, L. Coy, and K. Wargan</i>)
16:45 – 17:00	Tropospheric Column and UT/LS Ozone from Aura OMI, TES, MLS and HIRDLS: Improving Geographic Pattern Matching Using a CTM to Achieve Pseudo-Coincident Data (<i>Qi Tang (Cornell U.) and Michael Prather (Presenter, UC Irvine)</i>)
17:00 – 17:15	Global Assimilation of EOS-Aura Data as a Means of Mapping Ozone Distribution in the Lower Stratosphere and Troposphere (<i>Kris Wargan (SSAI-NASA/GSFC), S. Pawson, M. Olsen, A. Douglass, J. Witte, S. Strahan, and N. Livesey</i>)
17:15 – 17:30	On the Role of the Aura HIRDLS and MLS Vertical Resolutions in the Constraining Stratospheric Climate Variations (<i>Valery A. Yudin (NCAR/UACR), J. C. Gille, D. E. Kinnison, S. Karol, K. Wargan, R. Kivi, and N. Livesey</i>)
17:30 – 17:35	Wrap-up

POSTERS

Poster Session Tuesday, 2 October 2012, 15:15 – 17:30

New Wavelength-Dependent Smithsonian Astrophysical Observatory Air Mass Factor Tables for UV/Vis Retrievals (*G. Gonzalez Abad (Harvard U.), X. Liu, K. Chance, and R. Suleiman*)

Evaluation of Recent Updates to the Spectroscopy of CO₂ and CH₄ in the Thermal Infrared Using Observations from TES and IASI (*M. J. Alvarado (Atmospheric and Environmental Research), V. H. Payne, K. E. Cady-Pereira, S. Kulawik, A. P. Chase, E. J. Mlawer, G. Uymin, M. W. Shephard, J. Delamere, and J.-L. Moncet*)

Top-Down Isoprene Emissions over Tropical South America Inferred from SCIAMACHY and OMI Formaldehyde Columns (*Michael Barkley (U. of Leicester), I. De Smedt, M. Van Roozendael, T. P. Kurosu, K. Chance, A. Arneth, D. Hagberg, A. Guenther, F. Paulot, E. Marais, and J. Mao*)

A-Train Observations of Young Volcanic Eruption Clouds (*Simon A. Carn (Michigan Tech U.), A. J. Prata, K. Yang, and W. I. Rose*)

Volcanic Aerosols in the Stratosphere: Decadal Contributions from a Global Model and Aura Data (*Mian Chin (NASA/GSFC), T. Diehl, Q. Tan, N. Krotkov, W. Reed, and J.-P. Vernier*)

Middle- and Upper-Tropospheric NO₂ Abundance from the Ozone Monitoring Instrument (OMI) Obtained by the Cloud Slicing Technique (*Sungyeon Choi (SSAI-NASA/GSFC), J. Joiner, N. Krotkov, Y. Choi, E. Celarier, E. Bucsela, A. Vasilkov, P. Veefkind, and R. Cohen*)

NO_x Emissions and Distributions: Results from DISCOVER-AQ (*Russell R. Dickerson (UMD/ESSIC), D. Anderson, J. Stehr, L. Brent, T. Canty, R. J. Salawitch, N. Krotkov, K. Pickering, G. Diskin, R. Cohen, and M. Yang*)

Satellite Validation of Important Ozone-Depleting and Climate-Forcing Trace Gases from Airborne and Ground-Based Platforms (*James W. Elkins (NOAA/ESRL), J. D. Nance, F. L. Moore, E. J. Hintsa, G. S. Dutton, B. D. Hall, D. J. Mondeel, S. A. Montzka, B. R. Miller, D. F. Hurst, D. W. Fahey, P. A. Newman, E. Jensen, and S. C. Wofsy*)

A Climatology of Stratopause Temperature and Height in the Polar Vortex and Anticyclones (*Jeff France (Colorado U.)*)

Correlation Analysis of Column-Density Data with Surface-Mixing Ratios for O₃ and NO₂ during DISCOVER-AQ (*Clare Flynn (U. of Maryland – College Park), Kenneth E. Pickering (NASA/GSFC, Presenting), L. Lamsal, N. Krotkov, J. Herman, A. Weinheimer, G. Chen, X. Liu, J. Szykman, and S.-C. Tsay*)

Space-Based Constraints on Lightning NO_x Production in the GEOS-Chem Model over Southwest U.S. during North American Summer Monsoon (*Mei Gao (UC Los Angeles), Q. Li, Y. Mao, L. T. Murray, L. Zhang, L. N. Lamsal, and K.-N. Liou*)

Boundary-Layer Measurements from Aura TES v005 Water Vapor Retrievals (*Robert L. Herman (JPL/Caltech), J. Worden, J.-E. Lee, and S. S. Kulawik*)

Comparison of Pandora Ground-Based Measurements of Total Column NO₂ with OMI Satellite Measurements (*Jay Herman (UMBC-NASA/GSFC), A. Cede, N. Abuhassan, and M. Tzortziou*)

Large Wildfires in the Pacific Northwest (*Farren L. Herron-Thorpe (Washington State U.), G. H. Mount, L. K. Emmons, B. K. Lamb, S. H. Chung, D. A. Jaffe, and J. K. Vaughan*)

EOS Aura and Ozonesonde Profiles during 2005-2011 (*Rigel Kivi (FMI), O. Aulamo, and P. Heikkinen*)

Aura MLS Near-Real-Time Processing Stream for Use in Data Assimilation (*Alyn Lambert (JPL/Caltech), N. J. Livesey, W. G. Read, L. Froidevaux, M. J. Schwartz, G. L. Manney, H. Nguyen, W. Van Snyder, V. S. Perun, P. A. Wagner, I. Yanovsky, E. Martinez, and D. T. Cuddy*)

Polar Vortex and Temperature Diagnostics for Intercomparisons and MLS Data Inspection: Update on Antarctic 2012 Meteorology in Relation to Incoming MLS Data (*Zachary Lawrence (New Mexico Inst. of Mining and Technology), G. L. Manney, and K. Minschwaner*)

Asian Monsoon Hydrology from TES and SCIAMACHY Water Vapor Isotope Measurements and the LMDZ Model: Implications for Speleothem Climate Record Interpretation (*Jung-Eun Lee (JPL/Caltech), C. Risi, I. Fung, J. Worden, R. Scheepmaker, and C. Frankenberg*)

Lagrangian ‘Matches’ and Related Diagnostics for Aura MLS (*Nathaniel Livesey (JPL/Caltech), M. Santee, L. Froidevaux, G. Manney, L. Pfister, and M. Rex*)

CO Profile Retrieved from Combined TES and MLS Measurements on Aura Satellite (*Ming Luo (JPL/Caltech), W. Read, N. Livesey, S. Kulawik, J. Worden, R. Herman, and the TES and MLS teams*)

Satellite Observations of Tropospheric Ammonia and Carbon Monoxide: Global Distributions and Correlations and Comparisons to Model Simulations (*Ming Luo (JPL/Caltech), K. Cady-Pereira, M. Shephard, D. Henze, R. Pinder, J. Bash, G.-R. Jeong, and L. Zhu*)

A Comparison of OMI with Version 8.6 SBUV/2 (*Richard D. McPeters (NASA/GSFC)*)

Stratospheric and Mesospheric HO₂ Observations from the EOS Microwave Limb Sounder (*Luis Millan (JPL/Caltech), S. Wang, and N. Livesey*)

New Aura MLS BrO Observations and Implications for Br_y (*Luis Millan (JPL/Caltech), N. Livesey, W. Read, L. Froidevaux, D. Kinnison, R. Harwood, I. A. MacKenzie, and M. P. Chipperfield*)

Improvements to Ozone Monitoring Instrument Glyoxal Retrievals (*Christopher C. Miller (Harvard U.), D. J. Jacob, G. Gonzalez Abad, K. Chance, and X. Liu*)

Overview of HIRDLS V7 Products (*Bruno Nardi (NCAR/UCAR), M. B. Rivas, L. Smith, J. C. Gille, and the HIRDLS Team*)

Tropospheric Ozone Variations Governed by Changes in the Stratospheric Circulation (*Jessica L. Neu (JPL/Caltech), T. Flury, G. Manney, N. Livesey, and J. Worden*)

The NASA Langley Atmospheric Science Data Center: Online Tool to Effectively Disseminate Level 2 Tropospheric Emission Spectrometer (TES) Datasets (*Lindsay Parker (NASA/LARC), W. Baskin, P. Piatko, J. Kusterer, P. Rinsland, and J. Perez*)

Retrievals of Peroxy Acetyl Nitrate (PAN) from the Tropospheric Emission Spectrometer (*Vivienne Payne (JPL/Caltech), M. Alvarado, K. Cady-Pereira, J. Worden, and S. Kulawik*)

NASA’s Applied Remote Sensing Training Program (ARSET) (*Ana I. Prados (U. of Maryland at Baltimore), P. Gupta (Presenting; NASA GESTAR/USRA), R. Kleidman, J. Witte, and Y. Liu*)

Diurnal HIRDLS Species: NO₂, N₂O₅, and ClONO₂ (*Maria Belmonte Rivas (UCAR), J. C. Gille, and the HIRDLS Team*)

Quantification of Atmospheric BrO (*Ross Salawitch (U. of Maryland – College Park), T. Carty, G. Mount, E. Spinei, J. Herman, A. Cede, N. Abuhassan, S. Choi, R. McPeters, P. K. Bhartia, J. Joiner, J. Parrella, K. Chance, R. Suleiman, W. Simpson, B. Johnson, T. Kurosu, S. Tilmes, D. Kinnison, R. Garcia, J. Lee-Taylor, and S. Madronich*)

Geopotential Heights from HIRDLS Level-2 Temperatures and Tangent Height at Nominal Altitude (*Leslie Smith (NCAR/UCAR), J. C. Gille, and the HIRDLS Team*)

The Origin of Stratospheric Air (*Mark R. Schoeberl (Science and Technology Corporation), A. E. Dessler, and T. Wang*)

Satellite Measurements of Mid-Latitude UTLS Trace Gases in the Context of Multiple Tropopauses and Upper-Tropospheric Jets (*Michael J. Schwartz (JPL/Caltech), G. L. Manney, W. H. Daffer, M. I. Hegglin, and K. A. Walker*)

Joint Climatology of Ozone Profiles and Tropopause Height (*Viktoria F. Sofieva (FMI), J. Tamminen, E. Kyrölä, G. Bodeker, and B. Hassler*)

Stratospheric BrO Abundance Measured by a Balloon-Borne Submillimeterwave Radiometer
(*Robert A. Stachnik (JPL/Caltech) , R. Jarnot, R. Monroe, and L. Millan*)

Improved OMI BrO and OCIO (*R. Suleiman (Harvard U.), K. Chance, X. Liu, and G. Gonzalez Abad*)

SHADOZ Comparisons to OMI-Derived Products (2005-2009): Progress and Instrument Issues
(*Anne M. Thompson, (Penn State), J. C. Witte (Presenting; SSAI-NASA/GSFC), S. K. Miller, D. W. Kollonige, S. Tilmes, S. J. Oltmans, B. J. Johnson, F. J. Schmidlin, and the SHADOZ Team*)

Updates on the OMI Cloud Pressure Product Derived from Rotational Raman Scattering
(*Alexander Vasilkov (SSAI-NASA/GSFC), J. Joiner, B. Fisher, and S. Marchenko*)

Is mid-Latitude Convection Activating Chlorine in the Lower Stratosphere? (*Tao Wang (Texas A&M), A. E. Dessler, and M. R. Schoeberl*)

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Relationships between OLR, HIRDLS Gravity Wave Measurements, and Airborne Desert Dust Measurements (*Corwin Wright (UCAR)*)

WRF-Chem Simulations of Aerosol Impacts on Summer Monsoon Precipitation over China (*Longtao Wu (University of California/JPL), H. Su, and J. H. Jiang*)

Improving Retrieval of Anthropogenic Sulfur Dioxide (SO₂) from OMI Observations (*Kai Yang (AOSC/UMCP and GSFC/NASA), N. A. Krotkov, and C. Li*)

The Role DISCOVER-AQ Can Play in OMI Validation of NO₂ and Other Species (*Deborah C. Stein Zweers (KNMI), A. Piters, M. Allaart, F. Boersma, M. den Hoede, and P. Levelt*)